

Highlights

2002 Year in Review

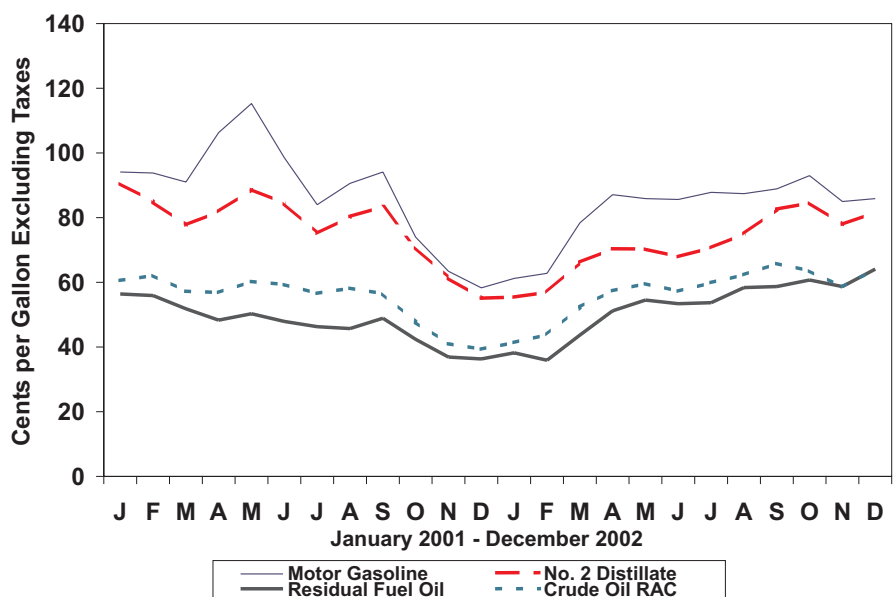
International Events and Trends

International crude oil prices experienced periods of significant increases as a variety of fundamental factors exerted pressure on market activity during 2002.

The year began with crude oil prices buffeted by conflicting issues. Cold weather in Europe and a drawdown in U.S. inventories at the start of January fostered a short-lived rise in prices. However, rising finished product stocks, particularly in the United States, slow demand for crude oil at the international level, comments made by U.S. Federal Reserve Chairman Alan Greenspan, and concern about compliance by participants to an Organization of Petroleum Exporting Countries (OPEC)-sponsored production cut agreements contributed to a downturn in prices during the middle portion of the month. By the end of January and through much of February, prices were back on the upswing, despite largely soft fundamentals. With stocks of crude oil and finished products at comfortable levels throughout world markets in conjunction with slow demand for the products, political matters acted as the stimulus for rising prices. However, while rumors of U.S. military actions against Iraq and political unrest in Venezuela asserted their influence on markets, warm winter temperatures in key markets and uncertainty about Russia's commitment to export reductions, following the expiration of an agreement with OPEC and other major producers, provided a moderating influence on rising prices. Despite those factors, prices rose substantially in

March. Indications of a rebound in the U.S. and world economies, and continuing concern over political disturbances in the Middle East, encouraged the increase. Speculation at the beginning of the month about whether the United States was planning a military attack on Iraq contributed to a "war premium" on prices. This premium was viewed as an added cost above the fundamental value of crude oil, stemming from fears of a disruption to the flow of crude oil from the Middle East due to hostilities in the region. Additionally, OPEC voted on March 15 to maintain production quotas at existing levels through the end of June to keep prices within a \$22 to \$28-per-barrel range. Some market watchers believed that high oil prices would impede the nascent economic recovery by dampening demand for oil products. By the close of March, prices for some key streams broke the \$25-per-barrel mark,

Figure HL1. Crude Oil and Petroleum Product



Sources: Energy Information Administration. Crude oil refiner acquisition cost: Form EIA-14, "Refiners' Monthly Cost Report"; petroleum product prices: Form EIA-782A, "Refiners'/Gas Plant Operators' Monthly Petroleum Product Sales Report."

driven by reports of declining stocks of crude oil and refined product—particularly in the United States—and spreading political tensions in the Middle East.

The influence of political matters continued to color world crude oil prices during the second quarter of the year. Continuing violence in the Middle East and an eruption in the previously simmering political situation in Venezuela were central factors in the volatility of prices during April. In response to the ongoing Israeli-Palestinian conflict, Iraq halted oil exports for 30 days on April 8 to pressure Israel to withdraw from Palestinian territory. However, prices reacted more acutely to the political upheaval in Venezuela. Large public protests, labor strikes, and finally the temporary ouster of President Hugo Chavez fueled a sharp decline in prices during the first half of the month. The expulsion of Chavez was interpreted as a possible shift in the country's close relationship to OPEC—of which it is a founding member—and its tight adherence to the group's policy on production levels. Oil prices hit their low point for the month following comments made by a Petroleos de Venezuela (PDVSA) official indicating the state-run company should focus on market conditions instead of OPEC production quotas. Nevertheless, Chavez was reinstated as president a few days later and oil prices rose in response to the belief that the country would again closely follow OPEC production policy. The higher prices were underpinned during the latter part of the month as market interest shifted back to various incidents in the Middle East. Prices continued to rise during the first few weeks of May, but began to recede as pressure from those issues and other fundamental factors began to wane during the latter part of the month. Previous speculation that the United States was planning a military attack on Iraq faded to the point where market watchers believed if there was to be a U.S.-led invasion of Iraq, it would not occur in 2002. The Iraqi embargo on oil exports was also lifted on May 8, and deliveries to export terminals resumed forthwith. Additionally, comments from Russian officials indicated that exports would return to pre-agreement levels when the accord was slated to end in June. Norway, another participant to the OPEC-sponsored agreement, also indicated it would revert to its normal rate of production after the agreement's expiration. Prices continued to fall during the first half of June in reaction to reports of rising stock levels in major markets and a reduction of the influence stemming from political factors. Reports of production overruns by some members OPEC also dampened

prices. Still, by mid-June prices began to rise. U.S. inventory reports that showed modest declines in crude oil stocks underpinned the increase, along with renewed strife between Israelis and Palestinians. On June 28, OPEC voted to maintain the group's production levels for another 3 months, while the previous day, Mexico announced it would hold exports to 1.66 million barrels per day through September. That rate was the one it had agreed to in the accord with OPEC implemented at the beginning of the year.

At the start of the third quarter of 2002, the absence of any decisive matters to influence market activity caused prices to experience only a moderate degree of change during July. Notably, even with the lack of volatility, prices on average were higher in July than they had been in June. In general, the perception that supplies exceeded demand tempered prices. Supporting that assumption, actual wellhead production for OPEC was reported to have exceeded the group's self-imposed production level. Accounts at the time showed the group produced 1.4 million barrels per day above the agreed limit in June, while overruns were even higher during July. Further, Venezuelan officials announced an increase in production in mid-July to make up for lost production and revenue during the oil workers' strike and the subsequent (albeit short-lived) coup against President Chavez in April. Nevertheless, by the end of July, renewed concern about a U.S. attack on Iraq began to push oil prices upwards. In August, those concerns coincided with other changes in market fundamentals. More specifically, issues related to global oil supply became more pronounced during August. Although OPEC continued to overstep production limits by significant amounts, a large drop in exports from Iraq offset the overproduction by the group. In the past, oil exports from Iraq have made up approximately 5 percent of the world's crude oil supply. By this time, both the Energy Information Administration (EIA) and the International Energy Agency (IEA) had stated that OPEC should raise output in the near future to prevent price spikes in the later part of 2002. Over the course of the month, various OPEC officials sent conflicting messages to international markets. Kuwait's acting oil minister said the group could maintain current production levels, and should vote to do so during the mid-September meeting in Osaka, Japan. Later, Saudi Arabian officials said if necessary, their country would increase production to moderate any sharp price increases, which had a calming effect on late-August oil prices. Despite those assurances, prices continued to rise in September.

ber. The increase was fostered by ongoing production and supply issues, along with the political situation between Iraq and the United States. Iraqi diplomatic efforts with the United Nations to avoid a military invasion helped lead prices lower during the initial days of the month. Further downward pressure came from the release of data showing the largest rate of production overruns by OPEC since the group agreed to impose production limits on itself. However, price trends quickly changed direction when supply reports showed a sharp decline in U.S. crude oil stocks. At the same time, U.S. and British warplanes attacked Iraqi targets in the “no-fly” zone, exacerbating market fears of a full-scale invasion of Iraq. In addition to the politically-charged atmosphere, tropical storms in the Gulf of Mexico that threatened production and supply facilities in the region bolstered oil prices.

Prices went into a period of decline during October, reversing the upward trend seen through most of the previous quarter. Lower demand and increased supply, including continuing production overruns by OPEC and refinery maintenance and run cuts in Northern Hemisphere markets, pressured prices lower. Prices also reacted to a slight abatement in tensions between the U.S. and Iraq due to diplomatic efforts to ameliorate the situation. The departure of severe weather affecting the Gulf of Mexico in late September and early October also helped to deflate prices. In November, prices were quite unsettled as a variety of issues exerted their influence at different times. During the initial weeks of the month, prices fell as more crude oil reached consumer ports and continued diplomatic efforts pertaining to the Iraq situation. The increase in supply was largely attributed to ongoing production overruns by OPEC. At the time, estimates for OPEC 10 (excluding Iraq, which had not been party to the agreements due to sanctions stemming from the 1990 Gulf War) wellhead production in September and October were 10 to 15 percent above quota levels. Additionally, the U.N. Security Council issued resolution 1441, which called for Iraq to submit unconditionally to weapons inspections on November 8. The resolution was finally accepted by Iraq on November 13, sending prices for many benchmark crude streams to the lowest levels seen in months. Shortly afterwards, prices began to rise in response to several issues, including growing political unrest in Venezuela, where opponents of president Hugo Chavez organized demonstrations and called for a general strike in the country. The situation gained more significance over the month as market watchers grew more uneasy about potential disruptions to oil production and exports. Events relating to Iraq including skirmishes with British and American warplanes in the

“no-fly” zone in Northern Iraq and the arrival of U.N. weapons inspectors pressured prices higher. Signals that OPEC members intended to reduce excess production also lent support to the upward trend in crude oil prices.

By December, international political events spurred crude oil prices to their highest levels for 2002. While the U.N. passed resolution 1447, renewing the “oil-for-food” deal with Iraq for the thirteenth 180-day phase of the program, and OPEC announced new production levels, the most significant issue affecting market price was the general labor strike in Venezuela. The strike, which began on December 2, had an almost immediate impact on the country’s oil production and exports. By mid-month, shipments from the world’s fifth largest oil exporter had dropped to a fraction of their normal level, and wellhead production was estimated to have fallen to 10 percent of normal. While OPEC voted on December 12 to increase official oil production levels by 1.3 million barrels per day to 23 million barrels per day as of January 3, 2003, as a means to curb chronic overproduction, by the end of the month the group indicated it would increase production in January enough to offset the dearth of supply from Venezuela. Amid these conditions, concern about the imminence of a U.S.-led military invasion of Iraq lifted prices for benchmark crude oil streams to their highest levels in two years during the final days of 2002.

Events and Trends in U.S. Markets

In the United States, the atmosphere in the petroleum products marketplace was volatile during 2002. The year opened with inventories at robust levels and periods of unseasonably mild temperatures affecting many key regional markets. Refining margins continued at restrained levels throughout the month, and with abundant imports of gasoline from Europe, the narrow margins caused some refiners to move up scheduled maintenance on refining facilities. The run cuts helped to boost prices during the latter part of January. Notably, Federal Reserve Chairman Alan Greenspan made public comments in mid-January stating he believed it would benefit economic recovery if energy prices continued to fall, with lower energy costs helping to stimulate long-term spending by households. Prices continued to be influenced by high stock levels and mild winter temperatures during February. Along with speculation about the U.S. taking military action against Iraq, scheduled refinery maintenance and discretionary run cuts lent some support to prices. Refin-

ery utilization was estimated to have dropped to 86.5 percent during February, its lowest level since February 2000. However, in March, international political issues and other fundamental factors converged and drove prices much higher throughout regional markets in the United States. Refiners began to increase output in preparation for the coming summer "driving season," thereby drawing down crude oil inventories. Federal clean air regulations require lower-RVP gasoline to be used during the warm weather months. The regulations stipulate that suppliers have this summer-grade product at the terminal level by May 1 and at retail outlets by June 1. At New York Harbor, the monthly average spot price for regular gasoline increased more than 25 percent from February's level. On the West Coast, gasoline prices spiked at the beginning of the month due in part to reports of refinery problems. The month average price for Cleaner Burning Gasoline (CBG) at Los Angeles was about 33 percent higher than February's average price.

The beginning of the second quarter of the year was marked with pronounced price volatility. In April, supply and demand rates—particularly for crude oil—and periodic reports of refinery problems shaped petroleum product prices. In Midwestern markets, refined product prices rose at the beginning of the month when the Federal Energy Regulatory Commission (FERC) halted deliveries on the new Centennial Pipeline due to issues regarding local tariff rates. Operations resumed on conditional basis for a 30-day period on April 4. Prices were also affected by reports showing a slight decline in U.S. crude oil inventories. The drop appeared to be the result of lower imports and higher refinery runs and, notably, was the first decline in crude oil stock levels since August 2001. Demand for gasoline continued to be brisk, growing for the third month in a row and setting a new high for April. Finished gasoline prices continued to undergo sizable increases at all levels, but especially at the end user level where they continued to see double digit increases. In May, gasoline prices retreated from the high levels seen in April. Further, refining margins shrank significantly during the month. While weekly stocks reports showed declines in crude oil inventories, which supported higher prices, they also showed gasoline supplies remaining at comfortable levels throughout regional markets, which dampened prices. In response, producers reduced refinery throughputs, which in turn cut demand for crude oil and fostered lower prices for the product. By June, refining margins expanded as demand for gasoline edged higher and stocks at

the national level registered a decrease, which in turn underpinned prices. Data reflecting refinery operations show utilization continued at restrained levels and crude oil stocks remained fairly steady.

In July, at the height of the summer driving season, prices moved within a comparatively tight range in markets across the country. After rising moderately at the start of the month due to concerns about the possibility of terrorist attacks on July 4, prices eased in the absence of any incidents during the long holiday weekend. Gasoline prices showed the most activity and range, due largely to weekly stocks reports showing successive declines in inventory levels over the month. Distillate prices received some modest support from purchases by utilities on the East Coast for consumption in their peak-use units during hot weather. Except for gasoline, prices rose firmly in August. Besides falling stock levels, crude oil prices were again driven by the "war premium." Distillate prices also climbed, particularly in Midwestern markets where a seasonal increase in demand, combined with tighter supplies spurred prices higher. In contrast, prices for gasoline held steady due to plentiful supplies throughout regional markets at the end of the summer driving season. An anticipated increase in imports to East Coast markets at the beginning of September also influenced gasoline prices. As a result, gasoline prices remained range-bound, and contributed to refining margins falling to their lowest level since November 2001. Because of the thin margins, several refiners announced run cuts and speculation arose that scheduled refinery maintenance typically slated during early to mid-autumn months would be higher than normal. While all product prices rose in September, refining margins widened as prices for refined products experienced steeper increases than crude oil prices. During the last week of September, Tropical Storm Isidore affected delivery systems and refinery operations on the Gulf Coast. Due to high seas caused by the storm, the Louisiana Offshore Oil Port (LOOP) temporarily closed operations on September 21. The LOOP is a major point in the crude oil supply system in the United States, with more than 1 million barrels per day of crude oil passing through the facility from both foreign and domestic sources. As a result, crude oil futures prices at NYMEX hit 19-month highs on September 23.

While crude oil prices eased marginally after the threat of Tropical Storm Isidore passed, another storm, Hurricane Lili, was predicted to make landfall on the Gulf Coast in the early days of October, forcing another round of personnel evacuations. Following the storm-related interruptions to production, refin-

ing, and delivery systems in the Gulf Coast region, most product prices declined moderately. Resisting the general trend, gasoline prices were volatile throughout regional markets due to solid demand and trimmer supply levels. Refinery closures and reduced pipeline throughputs caused by the storms forced suppliers to allocate gasoline in markets throughout the central region of the country. Additional unexpected refinery outages in other regional markets exacerbated the price increases that resulted from the storm-induced shortages. In Chicago, spot market prices for reformulated gasoline soared following news of an outage at a refinery in Ohio. In some Midwestern markets, tight supplies of diesel fuel during the harvest season spurred prices higher. Refinery outages in California, both scheduled and unscheduled, drove product prices (particularly for gasoline) higher in markets throughout the state. On the East Coast, while prices rose, they were not as volatile as those seen in other regions due in part to imports from European markets.

In November, prices continued in an unsettled mode, reacting to international political issues, trim inventories, refinery outages, and a snap of cold weather in the Northeast. Notably, a 7.9 magnitude earthquake in Alaska on November 3 caused the Alaska Pipeline to be shut down for 3 days. While petroleum product prices were affected in Pacific Northwest markets, prices in California were unfazed by this incident. California market prices for gasoline and diesel were, however, affected by news of refinery operations restarting at a number of facilities. The news sent prices significantly lower by the end of the month. Prices in Midwestern and Gulf Coast markets also eased as refinery operations returned to more normal levels. However, in December crude oil and refined product prices soared in reaction to international events, particularly the general labor strike in Venezuela that profoundly affected the country's oil production and exports. The state-owned oil company, *Petroleos de Venezuela S.A. (PDVSA)*, owns and operates a number of refineries in the United States through its wholly-owned subsidiary, *CITGO*. Venezuela's crude oil exports to the U.S. are generally destined for processing in those refineries. As the month wore on, those facilities had to cut throughputs due to the severe decline in their supply of crude oil. Further, two large refineries in the Caribbean that export much of their output to the United States—especially gasoline to the East Coast—were also forced to curtail operations. Additionally, about one-third of the refined petroleum products produced in Venezuela are exported to the U.S. Growing talk of a military invasion of Iraq and mounting tensions be-

tween the United States and North Korea exacerbated the effects of the Venezuelan strike on U.S. market prices. As a result of these issues, prices for all of the major products closed the year at their highest levels.

Crude Oil

The daily spot price for West Texas Intermediate (WTI) crude oil followed an unsettled course during 2002, buffeted by a variety of fundamental factors. Opening the year at \$19.96 per barrel, the price was colored by comfortable stock levels of crude oil and lower demand due to refinery maintenance. The year's low, \$18.02 per barrel, was reached on January 18. The price moved steadily upward during the remainder of the first quarter, particularly in March, as political issues dominated market trends. Following the appreciable growth seen during the winter, the springtime months marked a period of variability for the price. Early in April, the price was supported by concerns about the impact of the ongoing conflict in the Middle East. It then turned sharply downward following the outbreak of political turmoil in Venezuela. Following the reinstatement of Venezuelan President Hugo Chavez, the price rebounded. The same sort of rise and retreat pattern based on political and other fundamental market factors continued through the end of the second quarter. During the first part of summer 2002, the price was relatively subdued as supply and demand were seen in relative equilibrium, but it climbed sharply in August as stocks began to register declines and concern about a conflict with Iraq rose again. By September, the price was in a volatile mode again. In addition to the continuing influence of international politics, supply disruptions caused by inclement weather on the Gulf Coast boosted the price to its highest level of the year up to that point. While the price eased throughout October and through the first half of November, it returned to an upward path amid rekindled concerns about war with Iraq, reports that OPEC intended to curb overproduction, and political turmoil in Venezuela. It rose firmly throughout December as it became more evident that the strike in Venezuela would have a significant effect on that country's oil production and exports. Growing political tensions between the United States and both Iraq and North Korea also underpinned the rising price. Based on these factors, the price reached the year's high of \$32.68 per barrel on December 27. Easing slightly during the final days of 2002, the price closed the year at \$31.32 per barrel, \$11.36 above its opening level.

- Average crude oil prices for 2002 show a range of increases from 2001 levels. The domestic crude oil first purchase price rose 67 cents (3.1 percent), to \$22.51 per barrel.
- The free-on-board (f.o.b.) cost of imported crude oil increased \$2.17 (10.6 percent), to \$22.63 per barrel. The landed cost of foreign crude oil rose \$2.09 (9.6 percent), to \$23.91 per barrel.
- The refiner acquisition cost of domestic crude oil barely changed, rising 32 cents (1.3 percent), to \$24.65 per barrel. The cost of imported crude oil to U.S. refiners increased \$1.71 (7.8 percent), to \$23.71 per barrel. The composite refiner acquisition cost of crude oil climbed \$1.15 (5.0 percent), to \$24.10 per barrel.

Petroleum Products

Motor Gasoline

Buffeted by a variety of market-related factors, the range for daily spot price for regular gasoline at New York Harbor was quite wide during 2002. Opening at 53.6 cents per gallon, the price stayed on a fairly even course during January due to a favorable balance between supply and demand for the product. The year's low, 50.7 cents per gallon, was established on January 17. Continuing that trend, the price remained relatively quiet for most of February, but then rose sharply at the end of the month as concern about the political situation in the Middle East and Venezuela mounted. Spurred by robust demand, refinery problems, and declining inventories, the price increased significantly in March, rising 18 cents over the course of the month. The volatility continued during April, as the price continued to react to international political concerns. After rising during the first few days of the month, the price then dropped sharply, only to rebound at mid-month. After stabilizing during the latter part of April, the price declined moderately during May as inventory reports showed gasoline stocks at comfortable levels. As demand for gasoline grew in June, the price rose moderately, as stocks registered declines. Those same factors underpinned the price as it continued to rise in July. While other product prices underwent increases during August, the price for gasoline displayed little variation as inventories remained at

comfortable levels throughout regional markets. While the price continued to be moderated by ample stocks during September, it became more volatile in October. Following a retreat at the beginning of the month, the price began to rise as supply shortages became evident, particularly in the mid-section of the country, due to refinery outages and delays in product shipments. The price showed pronounced changes in November. After spiking at the beginning of the month, the price dropped precipitously as refinery operations increased and inventories rose. In an about-face, the price rose significantly during December as the labor strike in Venezuela continued and began to have an impact on refinery throughputs at some Gulf Coast and Caribbean facilities. The high for 2002 was struck on December 26 when the price reached 91.0 cents per gallon. Closing at 85.1 cents per gallon, the price ended the year 31.5 cents higher than where it began 2002.

- 2002 national average gasoline prices decreased from 2001 levels. The average price for retail sales of motor gasoline by refiners fell 8.5 cents to 94.7 cents per gallon, while the average wholesale price declined 5.8 cents to 82.8 cents per gallon. Including data reported by a sample of motor gasoline marketers, the national average price at company-operated retail outlets waned 8.0 cents, to 94.6 cents per gallon. The average wholesale price fell 5.6 cents, to 83.2 cents per gallon. The average dealer tank wagon (DTW) price for motor gasoline dropped 8.7 cents, to 88.9 cents per gallon. The average rack price fell 4.6 cents to 81.6 cents per gallon. The average bulk sales price decreased 5.5 cents to 74.1 cents per gallon. The difference between reformulated and conventional gasoline prices shrank in 2002, with margins averaging 5.6 cents at the retail level and 7.5 cents at wholesale. The difference between conventional and oxygenated gasoline prices also decreased, averaging 5.6 cents at retail and 7.5 cents at wholesale.
- On average, 2002 refiner sales of finished motor gasoline increased from 2001 levels. Total sales climbed 8.2 million gallons per day (2.2 percent), to an average of 375.4 million gallons per day. Retail sales rose 1.6 million gallons per day (2.6 percent), while wholesales increased 6.6 million gallons per day (2.2 percent). Rack sales accounted for 64.7 percent of refiner wholesale gasoline volumes, while DTW and bulk sales made up 21.5 percent and 13.9 percent, respectively. Sales of reformulated gaso-

line (RFG) constituted 31.9 percent of total motor gasoline sales, while oxygenated gasoline made up 3.2 percent of sales.

No. 2 Distillate

Like other product prices in the complex, the daily spot price for No. 2 heating oil at New York Harbor moved along a volatile and upward bound path during 2002. Opening at 54.8 cents per gallon, the price followed the general decline seen in petroleum product prices during January, but was additionally influenced by ongoing unseasonably warm winter temperatures, particularly at the end of the month. The price registered the year's low of 50.7 cents per gallon on January 30. Under the continued influence of robust stock levels and mild winter temperatures, the price showed little movement through most of February. During the final days of the month and throughout March, the price increased appreciably, underpinned by the same fundamental factors that affected crude oil and other finished product prices. Conforming to the general trend seen in the market during April, the price decreased sharply during the first part of the month, then rebounded during the latter half of April. With robust stockpiles and ebbing demand at the end of the heating season, the price declined through most of May. During the off-season months of June and July, the price generally followed the lead set by crude oil prices. However, the price shook off its passivity during August, rising over the course of the month as reports showed rising demand and decreasing stock levels. It continued to rise steadily in September as distillate stocks registered decreases during the month. The price declined in October and through the first half of November in tandem with crude oil prices. However, supported by forecasts for cold weather along the East Coast and rising crude oil prices, the price for heating oil rose during the second half of the month. The price rose considerably during December in reaction to market fundamental factors including the Venezuelan labor strike. The price reached its highest level for the year on December 26 when it hit 90.3 cents per gallon. Easing during the final days of 2002, the price closed the year at 87.2 cents per gallon, 32.4 cents higher than where it began.

- Yearly average No. 2 distillate prices decreased across the board from 2001 levels. The national average residential price dropped 12.1 cents to \$1.129 per gallon. The average wholesale price fell 5.7 cents to 72.8 cents per gallon. The national average price at company-operated retail outlets for No. 2 diesel fuel declined 8.1 cents to 86.2

cents per gallon, while the average No. 2 diesel wholesale price fell 5.6 cents, to 73.5 cents per gallon. The difference between low- and high-sulfur diesel fuel prices decreased in 2002, averaging 1.9 cents per gallon at retail and 2.6 cents per gallon at wholesale.

- Refiner sales of No. 2 distillate generally declined during 2002. Total sales fell 5.4 million gallons (3.5 percent) to 147.0 million gallons per day. No. 2 fuel oil sales decreased 1.6 million gallons per day (5.7 percent) while sales of No. 2 diesel fuel declined 3.8 million gallons per day (3.1 percent). Low-sulfur diesel accounted for 85.0 percent of all diesel fuel sales and 69.7 percent of all refiner No. 2 distillate sales.

Residual Fuel Oil

- Most of the average prices for residual fuel oil increased in 2002. The refiner price for retail sales of low-sulfur residual fuel barely changed, decreasing 0.2 cent to 64.0 cents per gallon. The wholesale price rose 2.3 cents to 54.6 cents per gallon. Refiner high-sulfur residual fuel prices increased 5.2 cents, to 54.4 cents per gallon at retail and 8.0 cents to 50.8 cents per gallon at wholesale. Including data reported by a sample of residual fuel oil marketers, the average low-sulfur price fell 0.8 cent to 61.2 cents per gallon at retail but rose 0.6 cent to 54.8 cents per gallon at wholesale. The average price for high-sulfur residual fuel increased 4.2 cents to 54.0 cents per gallon at retail and 6.4 cents to 50.2 cents per gallon at wholesale.
- On average, refiner sales of residual fuel oil declined in 2002. Total refiner sales fell 5.9 million gallons per day (23.5 percent), to an average of 19.2 million gallons per day. Low-sulfur residual fuel oil sales decreased 1.2 million gallons per day (13.3 percent), while high-sulfur residual fuel oil dropped 4.6 million gallons per day (28.6 percent).

Other Products

- The 2002 average prices for the remaining surveyed products declined across the board from 2001 levels. Refiner propane prices fell 8.7 cents per gallon at retail and 10.9 cents at wholesale. Including a sample of propane marketers, the average residential propane price plummeted 19.9

cents to \$1.086 per gallon, while the average wholesale price sank 11.6 cents to 44.0 cents per gallon. Refiner prices for kerosene-type jet fuel, aviation gasoline, kerosene, No. 1 distillate, and No. 4 distillate all declined soundly at both levels.

- Like the average prices for the products included in this section, 2002 refiner sales of propane, kerosene-type jet fuel, aviation gasoline, kerosene, No. 1 distillate, and No. 4 distillate dropped in both the retail and wholesale categories from 2001 levels.